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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/181,253	10/28/1998	GREGORY MICHAEL KAROL	FOM-143.01.	9665

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EXAMINER	
KUMAR, PANKAJ	

ART UNIT	PAPER NUMBER
2631	18

DATE MAILED: 08/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/181,253	Applicant(s) KAROL, GREGORY MICHAEL	
	Examiner Pankaj Kumar	Art Unit 2631	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 May 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *1-14* is/are allowed.

6)☒ Claim(s) *15-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 5/24/2004 have been fully considered but they are not persuasive.

2. Applicant argues that by the reference changing the input clock to the PLL in order to try to synchronize, the reference is not changing the time constant. This is not persuasive since by the reference changing the input clock to the PLL, the reference is changing the clock frequency. This clock frequency is based on a time constant – i.e. the clock makes each revolution at a constant time interval; with a different clock, the clock frequency is different and thus the clock makes one revolution at a different constant time interval. Hence by changing the clock frequency, the time constant changes. When referring to a RC time constant, the frequency at which a capacitor charges and discharges determines the RC time constant. Similarly the frequency at which the clock cycles is interpreted to be the time constant in applicant's invention.

3. Applicant also argues that they added the limitation indicated to be allowable in claim 15 and so now claim 15 is allowable. This is not persuasive since the limitation that was indicated to be allowable was only indicated to be allowable with the respective claim combinations in claims 1 and 14. Claim 15 is still rejected and applicant's amendment necessitates a new ground of rejection. Also, "said feedforward circuitry selectively coupling at least one circuit element to said feedback filter circuit" from the allowable section was changed to "said feedforward circuitry selectively coupling at least one circuit element to said PLL filter circuit" in claim 15.

Response to Amendment

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 16-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The time constant limitation is not defined in the specification. Also, the specification lacks specific detail as to what it means by altering a time constant with the PLL and what it means for the input inside the PLL and the PLL's output to have a time constant that changes.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claim 15 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. Claim 15 recites the limitation "said clock detection circuit output". There is insufficient antecedent basis for this limitation in the claim.

9. Claim 15 recites the limitation "said PLL feedback filter circuit". There is insufficient antecedent basis for this limitation in the claim.

10. Claim 15 recites the limitation "said feedback filter circuit". There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

12. Claims 16, 17 are rejected under 35 U.S.C. 102(e) as being anticipated by Kikuchi 5,977,806.

13. As per claim 16, Kikuchi 5977806 teaches a method for controlling a clocking circuit including a clock source comprising: detecting a failure of said clock source (Kikuchi fig. 4: variation in the input signal will be detected in the output of VCO44 which is a clock and this variation can be deemed a failure), the clock source coupled to an input of a phase-locked loop ("PLL") circuit (Kikuchi fig. 4: output of 44 eventually is feedback to the input of the PLL 40 in 41); applying a control signal (Kikuchi fig. 4: output of 60) to said PLL (Kikuchi fig. 4: 40) in response to said failure of said clock source (Kikuchi fig. 4: input signal into 41 and 51 is the same and when input signal is varied, the clock output of 44 varies which is deemed a failure),

said control signal (Kikuchi fig. 4: output of 6) altering a time constant (Kikuchi fig. 4: changing resistance R alters RC constant) within said PLL (Kikuchi fig. 4: VR and C3 are part of PLL 40).

14. As per claim 17, Kikuchi teaches the method of claim 16, wherein said altering said time constant includes modifying a feedback loop within said PLL by way of said control signal (Kikuchi fig. 4: output of 60 affects VR which modifies feedback loop out of 44 back to 41).

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

16. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kurita 6,163,186 in view of Sotel WO94/00918.

17. As per claim 15, Kurita teaches a circuit comprising: a clock source (Kurita fig. 2: output of B1); a PLL circuit having said clock source as its input (Kurita fig. 2: output of B1 is input into element 1 which is one of the elements of the PLL in fig. 2); a detection circuit (Kurita fig. 2: 81) coupled to said clock source (Kurita fig. 2: 81 is coupled to output of B1) and having an output representative of a presence of said clock source (Kurita fig. 2: output of B1 based on CK); and a feedforward correction circuit coupled to said output of said detection circuit (Kurita fig. 2: output of 81 is coupled to input of 44 and 44 is one of the elements part of the feedforward correction circuit) and to a feedback loop of said PLL (Kurita fig. 2: output of 44 which is part of

the feedforward correction circuit is connected to 45 which is part of the feedback path of the PLL) said feedforward circuitry coupled to said feedback filter circuit (rejected with 35USC112) and coupled to said clock detection circuit output (rejected with 35USC 112), said feedforward circuitry selectively coupling at least one circuit element to said PLL feedback filter circuit (rejected with 35USC 112), wherein said selective coupling is controlled by said clock detection circuit output (rejected with 35USC 112). Kurita does not teach feedforward coupled to feedback and feedforward selective coupling to PLL feedback where selective coupling is controlled by clock detection. Sotel teaches feedforward (Sotel fig. 14: 114b, S2+(S1-S1^)) coupled to feedback (Sotel fig. 14: 114a, 121a, 121b) and feedforward selective coupling to PLL feedback where selective coupling is controlled by clock detection (Sotel selectively couples one version of the data to multipliers and another version of the data to the same multipliers to multiply the two versions of data. This selective coupling is going on based on when the data is input and data is input based on a clock.) It would have been obvious to one skilled in the art at the time of the invention to modify Kurita with the teachings of Sotel. One would be motivated to do so if one wanted to perform interference cancellation in a multiple access system as taught in Sotel.

18. Claims 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi in view of Wu.

19. As per claim 18, Kikuchi teaches the method of claim 17. What Kikuchi does not teach is wherein said altering comprises at least one of engaging and disengaging at least one circuit element into said feedback loop in response to said control signal. What Wu teaches is wherein said altering comprises at least one of engaging and disengaging at least one circuit element into

said feedback loop in response to said control signal (Wu fig. 2: engaging and disengaging between the 202 clock rate and 204 clock rate). It would have been obvious to one skilled in the art at the time of the invention to modify Kikuchi with Wu. One would be motivated to do so if one wanted to automatically detect HDTV video format as taught in Wu.

20. As per claim 19, Kikuchi teaches the method of claim 16. What Kikuchi does not teach is switching another clock source to said input of said PLL in response to said control signal. What Wu teaches is switching another clock source to said input of said PLL in response to said control signal (Wu fig. 2, col. 5 first paragraph: switching between 202 and 204 clocks; 212 has output based on switching between two different clock sources). It would have been obvious to one skilled in the art at the time of the invention to modify Kikuchi with Wu. One would be motivated to do so if one wanted to automatically detect HDTV video format as taught in Wu.

21. As per claim 20, Kikuchi teaches the method of claim 19. What Kikuchi does not teach is wherein said switching to said other clock source includes switching from a bus received clock source to a local clock source. What Wu teaches is wherein said switching (Wu fig. 2: 212) to said other clock source includes switching from a bus received clock source (Wu fig.2: version of an input video clock) to a local clock source (Wu fig. 2: version of 202 or 204). It would have been obvious to one skilled in the art at the time of the invention to modify Kikuchi with Wu. One would be motivated to do so if one wanted to automatically detect HDTV video format as taught in Wu.

Allowable Subject Matter

22. Claims 1-14 are allowed. See prior action for details.

Conclusion

23. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pankaj Kumar whose telephone number is (703) 305-0194. The examiner can normally be reached on Mon, Tues, Wed and Thurs after 8AM to after 6:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad H. Ghayour can be reached on (703) 306-3034. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PK

M. G

MOHAMMAD H. GHAYOUR
PRIMARY EXAMINER